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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,294	05/31/2001	Med A. Nation	INTL-0586-US (P11727) 8631	
7590 12/29/2004			EXAMINER	
Timothy N. Trop			KIM, KEVIN	
TROP, PRUNER & HU, P.C. 8554 KATY FWY, STE 100			ART UNIT	PAPER NUMBER
HOUSTON, TX 77024-1805			2634	

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary DelPaT1,294		Application No.	Applicant(s)				
Figure		09/871,294	NATION, MED A.				
Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. Expansions of them may be revisible under the provisions of 32 CFR 1136(a), in no event, however, may a reply be timely field Expansions of them may be revisible under the provisions of 32 CFR 1136(a), in no event, however, may a reply be timely field ### The period for reply specified have is lics than thirty (30) days, a reply within the studiety principal field or reply specified there is then thirty (30) days, a reply within the studiety principal field or reply specified there is then thirty (30) days, a reply within the studiety principal field or reply specified there is then thirty (30) days, a reply within the studiety principal field or reply specified above, the maximum studiety period will apply and will explice (5) (6) MOTHS from the mailing date of this communication. ### Final Principal Responsive to communication(s) filled on 25 August 2004. ### Responsive to communication(s) filled on 25 August 2004. ### Responsive to communication(s) filled on 25 August 2004. ### Responsive to communication for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. ### Disposition of Claims ### Alpha Claim(s) is/are pending in the application. ### Alpha Claim(s) is/are allowed. ### Alpha Claim(s) is/are allowed. ### Alpha Claim(s) is/are allowed. ### Alpha Claim(s) is/are subject to restriction and/or election requirement. ### Application Papers ### Alpha Claim(s) is/are subject to the restriction and/or election requirement. ### Application Papers ### Alpha Claim(s) is/are subject to the restriction and/or election requirement. ### Application Paper subject to restriction and/or election requirement. ### Application Paper subject to restriction is objected to by the Examiner. ### Application Paper subject to restrict th	Office Action Summary	Examiner	Art Unit				
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Application/Control Number: 09/871,294

Art Unit: 2634

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see filed August 25, 2004, with respect to the rejection(s) of claim(s) 1-30 under 35 USC 102 (e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a newly found prior art as set forth below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. Claims 1-6,9-14,17-23,25-29,31,-33,36,37,39,41-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohnishi et al (US 5,473,280).

Consider claims 1, 9, 17,18,25,36,39 and 42. Referring to Fig. 2, Ohnishi et al discloses a modulation method, comprising,

an oscillator (not shown) generating a first signal having a fundamental frequency (fc₁), a modulator (81) for modulating/multiplying an input signal (I, Q) with the first signal, see Mapping circuit (81) and a filter (22) for tuning the modulation to a harmonic (3fc) of the fundamental frequency (fc), see CPX BPF (84), to produce a modulated signal having a carrier frequency near the harmonic. See col. 4, lines 9-27 and Fig.3A-3C.

Additionally with respect to claim 17, the radio communication system of Ohnishi et al inherently includes "circuitry to communicate the modulated to a communication system."

Regarding claims 2,10,26,31 and 37 since the harmonic frequency is passed while other frequency bands including the fundamental frequency fc are suppressed by the bandpass filter (22), the modulated signal has substantially more spectral energy near the harmonic than near the fundamental frequency.

Regarding claims 3,11,19,21,28,32 and 41 see the bandpass filter that passes frequencies near the harmonic. See Fig.3B and col. 4, lines 18-27.

Regarding claims 4,12,20,27 and 33 since the bandpass filter (22) passes the harmonic frequency, the spectral energy of the modulated signal near the fundamental frequency is filtered out.

Regarding claims 5, 13,22 and 29 col.4, lines 20-21 describes a third harmonic, which is an odd harmonic.

Regarding claims 6,14 and 23 the input signal to the modulator (81) is a complex signal (I,Q).

Allowable Subject Matter

Application/Control Number: 09/871,294 Page 4

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4. Claims 7, 8,15,16,24,30,34,35,38 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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